

Ozone Nonattainment Designation for Areas in South Carolina

Fact Sheet – May 2004

- ?? The Clean Air Act (CAA) requires that air quality in every state meet health based National Ambient Air Quality Standards (NAAQS). Using data from each state's ozone monitoring network and recommendations from the respective states, the United States Environmental Protection Agency (EPA) determines if geographic areas of the state are attainment (meet the standard) or nonattainment (exceed the standard). States with areas that are nonattainment are required to revise their State Implementation Plan (SIP) with necessary control measures to ensure that the standards are attained and maintained by a specified date.
- ?? On April 15, 2004, the EPA took the following actions:
- Issued designations and classifications based on the severity of the ozone problem in each state, effective June 15, 2004.
 - Deferred the effective date of designation for nonattainment areas participating in the Early Action process.
 - Released Phase 1 of the 8-hour ozone implementation rule. Phase 1 of the final rule explains how EPA is classifying areas not meeting the 8-hour ozone standard; how areas will transition from the 1-hour standard for ozone to implementing the 8-hour ozone standard; and, establishes attainment dates for the 8-hour standard and the timing of emissions reductions needed for attainment. The expected release date for Phase 2 is August 2004, addressing reasonably available control measures and technology, attainment demonstrations and modeling requirements.
- ?? The majority of South Carolina was designated attainment for the 8-hour ozone standard. However, three areas of South Carolina were included in the nonattainment designation. They are:
- Columbia Area – includes portions of Richland and Lexington counties (as an EAC area, the effective date of nonattainment has been deferred);
 - Greenville-Spartanburg-Anderson Area – includes each of the three counties (as an EAC area, the effective date of nonattainment has been deferred); and,
 - Charlotte-Gastonia-Rock Hill, NC-SC Area – includes a portion of York County, including the City of Rock Hill.

Nonattainment Designation

- ?? Upon the effective date of nonattainment, areas are immediately faced with a more comprehensive permitting process under nonattainment New Source Review (NSR) and within one year of the effective date, areas will have to begin conformity analyses, which ensure that projects utilizing federal funds do not have an adverse impact on an area's air quality. The most common form of conformity analysis is Transportation Conformity, which deals specifically with road projects.
- ?? States may also have to implement emission reduction strategies to improve air quality. Those strategies will be included in the revised State Implementation Plan (SIP), due to EPA within 3 years after the effective date of the nonattainment designation. Areas with higher classifications will be faced with additional federal requirements.

Early Action Process

- ?? EPA has provided an option for areas currently meeting the 1-hour ozone standard, like those in South Carolina, to attain the 8-hour ozone standard by December 31, 2007, and obtain cleaner air sooner than federally mandated. This option requires an expeditious time line for achieving emissions reductions sooner than expected under the 8-hour ozone implementation rulemaking, while providing "fail-safe" provisions for the area to revert to the traditional SIP process if specific milestones are not met.
- ?? By signing the Early Action Compact (EAC), EPA agreed to defer the effective date of the non-attainment designation for participating areas. However, areas participating in the EAC that do not meet all of the terms of the EAC, including established milestones, will forfeit participation and will be designated according to requirements within EPA's 8-hour ozone implementation rule, i.e., Transportation Conformity and non-attainment New Source Review.

- ?? Two areas of South Carolina (Columbia and Greenville-Spartanburg-Anderson areas) designated as nonattainment are a party to an EAC and have included local emission reduction strategies in their respective early action plan submitted to DHEC and EPA in March 2004. These areas have had the effective date of the nonattainment designation deferred.
- ?? As a result of a portion of York County being included in the Charlotte-Gastonia-Rock Hill, NC-SC nonattainment area, that portion of the county, commonly referred to as the Rock Hill Metropolitan Planning Organization, is no longer eligible to participate in the EAC and will follow the traditional SIP requirements as outlined in the CAA.
- ?? In addition, DHEC is taking additional steps to reduce emissions earlier than federally required. These actions include developing: a plan for state government to implement emission reduction strategies and lead by example; voluntary reductions at larger permitted facilities; revisions to the open burning regulation; NOx control regulation; and Smart Highways.
- ?? South Carolina has invested significant resources to conduct a statewide 8-hour ozone modeling analysis. Modeling results demonstrate that all areas of South Carolina will attain the 8-hour ozone standard by 2007.
- ?? For the EAC areas, if the monitors in the area reflect attainment by December 31, 2007, the area will be designated as attainment and no additional requirements will be imposed.

Ground-level Ozone

- ?? Ground-level ozone is formed when two chemicals, nitrogen oxides (NO_x) and volatile organic compounds (VOCs), react in the presence of heat and sunlight. Some sources of these pollutants are cars, trucks, and industry.
- ?? Ground-level ozone is a concern during the hot, summer months. The South Carolina Department of Health and Environmental Control (DHEC) has an extensive monitoring network covering the state and routinely monitors for ground level ozone during the months of April through October, the time period often referred to as the “ozone season.”
- ?? Ozone can cause permanent damage to the respiratory system. Active children are at highest risk from ozone exposure because they often spend a large amount of time outdoors. Active adults of all ages who exercise or work outdoors have an increased risk of exposure to elevated levels of ozone. People with asthma or other respiratory diseases are particularly sensitive to ozone exposure.
- ?? Meteorologists at DHEC’s Bureau of Air Quality (BAQ) issue daily ground level ozone forecasts for the Upstate, Central Midlands, Pee-Dee, and Central Savannah areas of the state. The forecast for the Catawba region is made available by North Carolina. Ground-level ozone is forecasted each year from the beginning of May through the end of September and is disseminated daily. The forecast serves as a public health service to protect those persons who are most at risk to the effects of ozone. Citizens in these areas are advised on a daily basis about predicted air quality so that they can take actions to protect their health. In addition, South Carolina is an original partner with EPA on the AIRNow project, which allows the current and forecast ozone and particulate matter air quality information to be available to citizens statewide.



For further information on ozone and nonattainment issues and for actions that may be taken to help reduce emissions, visit www.scdhec.net/baq/eap.html.